

Comments on amendments to the claims

Claims 1 and 26 are currently amended to include substantially the limitations of dependent claim 16. Claim 16 is canceled.

Claim 26 is currently amended to explicitly indicate that the determined optical properties are provided as an output. Lines 2-6 of page 15 of the description relate to determination of optical properties, and it is well known in the art that instruments for determining optical properties of a sample routinely provide such determined properties as output. Accordingly, no new matter is introduced.

New claim 35 is added, to explicitly cover coupled mechanical translations of elements in three optical paths. This claim is supported by the description, e.g., the description of the embodiment of Fig. 1. In this example, the first optical path is described on lines 14-25 of page 9, the second optical path is described from line 21 of page 10 to line 3 of page 11, the third optical path is described on lines 1-12 of page 12, and combined motion of elements in these three paths is described on lines 12-22 of page 12. Coupled motion of elements in multiple optical paths is also described on lines 24-28 of page 6. Accordingly, no new matter is introduced.

Detailed action: claim rejections under 35 USC 101

Claim 26 stands rejected under 35 USC 101 as directed to non-statutory subject matter.

Examiner indicates that the limitation in claim 26 to "determining optical properties of said sample based on said

measured intensity" does not appear to constitute a "tangible" result, since the claim does not recite a specific practical application, nor does it explicitly require the determined optical properties to be made available for practical application.

Claim 26 is currently amended to explicitly require that the determined optical properties be provided as output. The determined optical properties are thus available for various practical applications. Accordingly, this claim amendment is believed to be a complete response to this rejection of claim 26.

Applicant further submits that claim 26, as amended, is clearly directed to patentable subject matter. The claim as a whole relates to a method of measuring optical properties of a sample, which is clearly not a judicial exception (i.e., not an abstract idea, a law of nature, or a natural phenomenon). More specifically, Applicant holds that claim 26 provides a useful, tangible and concrete result.

Measurement of optical properties of a sample is clearly useful. The method of claim 26 is tangible, since output of determined optical properties provides a measurement of physical properties (i.e., the optical properties) of a concrete object (i.e., the sample). The method of claim 26 is also concrete, since the results of this method are substantially repeatable, as is the case for most methods in this art area.

Accordingly, Applicant holds that claim 26 as amended is directed to statutory subject matter, and respectfully requests reconsideration of this claim rejection.

Detailed action: claim rejections under 35 USC 103

Claims 1-6, 10, 13, 15-17, and 26 stand rejected under 35 USC 103(a) as being unpatentable over US 5,106,196, hereinafter Brierley.

Claims 1 and 26 are currently amended to include the limitations of dependent claim 16, relating to displacing the second parabolic mirror and second planar mirror, without altering their relative position, in order to move or adjust a focus position of the broadband beam. Such adjustment of the focus position is accomplished without moving the elements of the first component pair.

Examiner holds that it would be obvious to an art worker to modify the arrangement of Brierley to arrive at the invention of amended claim 1. Applicant respectfully traverses this claim rejection.

The mechanism of Brierley (front page, Fig. 2) is an arrangement where the angle of incidence of an optical beam on a sample can be changed by translating a planar mirror relative to a parabolic mirror (column 6, lines 31-36). The central issue is whether or not it is obvious, in view of Brierley, to modify Brierley such that the planar mirror and parabolic mirror are translated together, as in amended claim 1.

Applicant respectfully submits that such modification would not be obvious to an art worker, since such modification would negate the fundamental operating principles of Brierley. Accordingly, Brierley itself teaches against such modification. More specifically, such modification would

provide a fixed angle of incidence on the sample, thereby defeating the central purpose of Brierley (see, e.g., the Abstract and claim 1 of Brierley) of providing a variable angle of incidence on the sample.

Thus the motivation to combine (or modify) the teachings of the references required for a valid claim rejection under 35 USC 103 is not apparent from the record. Accordingly, Applicant respectfully requests reconsideration of this rejection of amended claim 1.

Claims 2-6, 10, 13, 15, and 17 depend from claim 1. Accordingly, the above amendments and arguments in connection with claim 1 are also responsive to this rejection of claims 2-6, 10, 13, 15, and 17.

Claim 16 is canceled.

Claim 26 is amended to have substantially the same limitations as amended claim 1. Accordingly, the above amendments and arguments in connection with claim 1 are also responsive to this rejection of claim 26.

New claim 35 is presented, dependent from claim 1. Applicant holds that claim 35 is allowable in view of its dependence from amended claim 1. In addition, the further limitations of claim 35 to three light paths, each path having translatable optical elements, where the translatable elements in the three paths are moved without altering their relative position, are not taught or suggested by the references of record.

Detailed action: claim rejections under 35 USC 103

Claims 7-8, 11, and 27 stand rejected under 35 USC 103(a) over Brierley in view of US 2006/0001883, hereinafter Brill.

Claims 7-8, and 11 depend from claim 1. Accordingly, the above amendments and arguments in connection with claim 1 are also responsive to this rejection of claims 7-8, and 11.

Claim 27 depends from claim 26. Accordingly, the above arguments and amendments in connection with claim 26 are also responsive to this rejection of claim 27.

Detailed action: claim rejections under 35 USC 103

Claims 14, 18-22, 24, 28-29, and 31-34 stand rejected under 35 USC 103(a) over Brierley in view of Brill and further in view of US 5,917,594, hereinafter Norton.

Claims 14, 18-22, and 24 depend from claim 1. Accordingly, the above amendments and arguments in connection with claim 1 are also responsive to this rejection of claims 14, 18-22, and 24.

Claims 28-29 and 31-34 depend from claim 26. Accordingly, the above arguments and amendments in connection with claim 26 are also responsive to this rejection of claims 28-29 and 31-34.

Detailed action: claim rejections under 35 USC 103

Claims 9, 12, 23, 25, and 30 stand rejected under 35 USC 103(a) over Brierley in view of Brill in further view of Examiner's Official Notice.

Claims 9, 12, 23, and 25 depend from claim 1. Accordingly, the above amendments and arguments in connection

with claim 1 are also responsive to this rejection of claims 9, 12, 23, and 25.

Claim 30 depends from claim 26. Accordingly, the above arguments and amendments in connection with claim 26 are also responsive to this rejection of claim 30.

REMARKS

All claim rejections have been addressed. No new matter is introduced. Examiner's reconsideration of, and allowance of, this application is respectfully requested.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Robert Lodenkamper", with a long horizontal flourish extending to the right.

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